The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-33   (Canceled)

34.   A subpicture decode and execution system, comprising:

a first processor arranged to parse a received video data stream into a number of separate packs some of which are subpicture video packs; and

a second processor coupled to the first processor arranged to receive the subpicture video packs from the first processor, wherein the second processor processes a received subpicture video pack to provide a subpicture pixel data (PXD), a subpicture control command data (SP DCSQT), a pixel data pointer (PTR) that points to an associated subpicture pixel data (PXD) and a corresponding pointer time stamp (PTS) that indicates a time that a particular subpixel data (PXD) pointed to by a corresponding pointer PTR will be needed for further processing and video object unit (VOBU) information.

35.   A system as recited in claim 34, further comprising:

a system memory unit coupled to the second processor wherein for a particular PXD and SP DCSQT, comprising:

a PXD data structure for storing the PXD;

a SP DCSQT data structure for storing the SP DCSQT;

a PTR data structure for storing the PTR corresponding to the stored PXD wherein the stored PTR points to the stored PXD;

a PTS data structure for storing the PTS corresponding to the stored PTR; and

a VOBU data structure for storing the VOBU.

2

36. A system as recited in claim 34, wherein VOBU information includes information, for a video object unit that includes presentation starting time, presentation termination time, and presentation period.

37. A system as recited in claim 34, further comprising:

a fast local memory coupled to the system memory; and

a time manager module arranged to transfer PXD from the PXD data structure and an associated SP DCSQT from the SP DCSQT data structure into the fast local memory when needed for the further processing.

38. A system as recited in claim 37, wherein the time manager module is incorporated into the second processor and wherein the fast local memory is in close proximity to the second processor.

39. A system as recited in claim 34, further comprising:

a display unit coupled to the system for displaying the further processed subpicture pixel data.

40. A system as recited in claim 39, further comprising:

a dedicated hardware subpicture unit coupled to the display unit, the local memory, and the second processor for performing the further processing.

41. A system as recited in claim 34, wherein the system is incorporated into a DVD player or a set top box or an LCD TV.

3

42. A system as recited in claim 34 wherein the subpicture control command data includes pixel color information, pixel contrast information, or subpicture display area information.

43. A method of decoding subpicture video packs, comprising:

parsing a received video data stream into a number of separate packs by a first processor;

determining a pack type;

when some of the packs are subpicture video packs, forwarding the subpicture video packs to a second processor; and

providing a subpicture pixel data (PXD), a subpicture control command data (SP DCSQT), a pixel data pointer (PTR) that points to an associated subpicture pixel data (PXD) and a corresponding pointer time stamp (PTS) that indicates a time that a particular subpixel data (PXD) pointed to by a corresponding pointer PTR will be needed for further processing and video object unit (VOBU) information by the second processor.

44. A method as recited in claim 43, further comprising:

coupling a memory unit to the second processor wherein for a particular PXD and SP DCSQT, further comprising:

storing the PXD in a PXD data structure;

storing the SP DCSQT in a SP DCSQT data structure;

storing the PTR corresponding to the stored PXD in a PTR data structure wherein the stored PTR points to the stored PXD;

storing the PTS corresponding to the stored PTR in a PTS data structure; and

storing the VOBU in a VOBU data structure.

4

45. A method as recited in claim 44, wherein VOBU information includes information, for a video object unit that includes presentation starting time, presentation termination time, and presentation period.

46. A method as recited in claim 44, further comprising:

when needed for the further processing, transferring PXD from the PXD data structure and an associated SP DCSQT from the SP DCSQT data structure into a fast local memory that is coupled to the system memory by a time manager module.

47. A method as recited in claim 46, wherein the time manager module is incorporated into the second processor and wherein the fast local memory is in close proximity to the second processor.

48. A method as recited in claim 43, further comprising:

displaying the further processed subpicture pixel data by a display unit coupled to the system.

49. A method as recited in claim 48, further comprising:

performing the further processing by a dedicated hardware subpicture unit coupled to the display unit, the local memory, and the second processor.

50. A method as recited in claim 43, wherein the method is performed by a DVD player or a set top box or an LCD TV or a computer monitor.

5

51. A method as recited in claim 43 wherein the subpicture control command data includes pixel color information, pixel contrast information, or subpicture display area information.

52. Computer program product for decoding subpicture video packs, comprising:.

computer code for parsing a received video data stream into a number of separate packs by a first processor;

computer code for determining a pack type;

computer code for forwarding the subpicture video packs to a second processor when some of the packs are subpicture video packs;

computer code for providing a subpicture pixel data (PXD), a subpicture control command data (SP DCSQT), a pixel data pointer (PTR) that points to an associated subpicture pixel data (PXD) and a corresponding pointer time stamp (PTS) that indicates a time that a particular subpixel data (PXD) pointed to by a corresponding pointer PTR will be needed for further processing and video object unit (VOBU) information by the second processor; and

computer readable medium for storing the computer code.

53. Computer program product as recited in claim 52, further comprising:

computer code for coupling a memory unit to the second processor wherein for a particular PXD and SP DCSQT, further comprising:

computer code for storing the PXD in a PXD data structure;

computer code for storing the SP DCSQT in a SP DCSQT data structure;

computer code for storing the PTR corresponding to the stored PXD in a PTR data structure wherein the stored PTR points to the stored PXD;

computer code for storing the PTS corresponding to the stored PTR in a PTS data structure; and

6

computer code for storing the VOBU in a VOBU data structure.

54.   Computer program product as recited in claim 53, wherein VOBU information includes information, for a video object unit that includes presentation starting time, presentation termination time, and presentation period.

55.   Computer program product as recited in claim 53, further comprising:

when needed for the further processing , transferring PXD from the PXD data structure and an associated SP DCSQT from the SP DCSQT data structure into a fast local memory that is coupled to the system memory by a time manager module.

56.   Computer program product as recited in claim 55, wherein the time manager module is incorporated into the second processor and wherein the fast local memory is in close proximity to the second processor.

57.   Computer program product as recited in claim 52, further comprising:

displaying the further processed subpicture pixel data by a display unit coupled to the system.

58.   Computer program product as recited in claim 57, further comprising:

performing the further processing by a dedicated hardware subpicture unit coupled to the display unit, the local memory, and the second processor.

59.   Computer program product as recited in claim 52, wherein the method is performed by a DVD player or a set top box or an LCD TV or a computer monitor.

7

60.   Computer program product as recited in claim 52 wherein the subpicture control command data includes pixel color information, pixel contrast information, or subpicture display area information.

8